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ABSTRACT

This document reviews literature which analyzes factors of adolescent drug use/abuse and the effectiveness of various drug abuse prevention programs. After a brief introduction to the topic of drug abuse, 16 terms such as "adolescence" and "drug abuse" are defined. Ten papers and articles on the topic of motivations and factors for drug use are presented. Ten articles on the effects of peer and parental influence on adolescent drug use are included. Ten articles and papers on specific program models for drug education are presented. Seven articles on evaluation and effectiveness of drug education and prevention programs are included. A review of the literature is included which presents these conclusions: (1) adolescent drug use is on the increase; (2) factors motivating and influencing adolescent drug use include the need to escape, boredom, a desire to get high, peer influence, and parent influence; (3) the educator may in the best position to help, since students spend so much of their time in school; (4) educators are increasing the adolescents' knowledge about drugs (which may only increase curiosity about drugs), but they are not positively influencing the attitudes and behavior of their students; (5) newest models appear to be emphasizing decision making skills, attitudes toward drugs, and values; (6) many of the programs studied lacked the long-term, longitudinal studies that were necessary in determining program effectiveness; (7) funding and testing procedures were factors that interfered with program effectiveness; and (8) the need for effective drug prevention programs is vitally important if there are to be significant changes in the lives of today's adolescents. Eight recommendations for drug education prevention programs are presented. (ABL)

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An Annotated Bibliography Of Literature Analyzing Factors Of Adolescent Drug Use/Abuse And The Effectiveness Of Various Drug Abuse Prevention Programs

by

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INTRODUCTION

"Drug use among adolescents is a growing concern. Numerous studies document the fact that drug use is on the increase among this population, . . . more and more youth are 'getting high'"(Ford 187). The transition period from teenager to adult is seen as a critical stage of development for the adolescent. Many biological and psychological changes occur during this transition period. The use of drugs has been shown to have devastating consequences, not just in terms of physiological and psychological effects on the body, but in the development of a pattern of behavior that may become a primary method for coping throughout the life of the adolescent(Ford 187).

In an attempt to stop this rise in adolescent drug use, there has been a substantial increase in the number of drug education prevention programs being implemented in the schools. In a study by Dupont and Jason, it was stated that "many of these programs have focused on providing information about drugs and their physical and psychological effects. . . . While these programs have been successful in increasing participants' knowledge of drugs, rarely have changes occurred in either attitudes towards drugs or actual drug use"(369). Because of the continued increase in drug use/abuse by adolescents, educators need to be aware of the diversity of motivating and influencing factors for adolescents as well as what can be done in the prevention of further use.

STATEMENT OF THE PROBLEM

Because of the continued increase in drug use/abuse by adolescents, educators need to be aware of the diversity of motivating and influencing factors for adolescents as well as what can be done in the prevention of further use.

PURPOSE OF THE STUDY

The purpose of this study is to analyze motivating and influencing factors present in the lives of adolescent drug users and abusers. In addition, current drug education prevention programs will be examined to determine the effectiveness and ineffectiveness of the various approaches to solving the problem.

ORGANIZATION OF THE STUDY

This study will be divided into two major sections. The first section will examine motivating and influencing factors for adolescent drug use. The second section will look at specific program models and evaluate their effectiveness.

LIMITATIONS

1. Funding for effective program development was insufficient.
2. It was apparent that there was a lack of effective evaluations of already developed programs.
3. Researchers were uncertain about the reliability of self-reported drug use.

GLOSSARY

adolescence-- "state or process of growing up; the period of life from puberty to maturity terminating legally at the age of majority." (Webster's Ninth New Collegiate Dictionary, 58)

adolescent-- "one that is in the state of adolescence; emotionally or intellectually immature." (Webster's Ninth New Collegiate Dictionary, 58)

affinity-- "likeness based on a relationship or causal connection; it involves a closeness in terms of a family relationships." (Webster's Ninth New Collegiate Dictionary, 61; Babst, 30)

drug-- "includes the full range of commonly recognized psychoactive substances, both licit and illicit; a substance other than food intended to affect the structure or function of the body." (Schaps, 18; Webster's Ninth New Collegiate Dictionary, 385)

drug abuse-- "psychological or physical dependence upon psychoactive drugs, as exemplified by the almost daily ingestion of dangerous drugs." (Jurich, 150)

drug use-- "infrequent or occasional use of legal or non-addictive drugs." (Jurich, 150)

etiology/etiological-- "a branch of knowledge concerned with the causes of particular phenomena; cause; orgin." (Webster's Ninth New Collegiate Dictionary, 427)

illicit-- "illegal." (Schaps, 18)

licit-- "legal." (Schaps, 18)

peer-- "one that is of equal standing with another; equal; one belonging to the same societal group especially based on age, grade, or status." (Webster's Ninth New Collegiate Dictionary, 867)

peer influence-- "can be either a negative or positive influence in the adolescent's decision about substance usage; seems to increase with age." (Selnow, 330)

prevention-- "the forestalling, thwarting and/or keeping from doing something." (Milgram, 50)

preventive education-- "reaching the student prior to his becoming a drug user." (Lerner, 317)

self-concept-- "mental image one has of oneself." (Webster's Ninth New Collegiate Dictionary, 1065)

self-esteem-- "a confidence and satisfaction in oneself; self-respect." (Webster's Ninth New Collegiate Dictionary, 1066)

"stepping stone" drug-- "also called a gateway drug; continued use may signal movement toward other even more harmful controlled substances." (Winfree, 503)

ANNOTATIONS

Motivations and Factors For Use

_____, "A Study of Children's Attitudes and Perceptions About Drugs and Alcohol," Weekly Reader Publications ERIC ED 258079 (1983): 1-27.

In a survey by Weekly Reader Periodicals, 3,700,000 students in grades four through 12 gave their opinions on a variety of drug related questions concerning what they believed to be happening among other students. The results of the survey indicated that most students in grades seven through 12 learned about the dangers of drugs from school, family, and television or movies. Even though pressure to use drugs and alcohol was not seen as a significant cause for drug use, it appeared that most students felt that the main reason kids start using drugs and alcohol was to fit in. Students believed that the older they get the more often drugs and alcohol are used, and almost all high school students believed that kids their own age have tried alcohol and marijuana. In conclusion, it was noted that cigarettes and alcohol were not seen as drugs in the same way as marijuana or other drugs.

Bloom, Marie D., M.S., and Michael A. Greenwald, Ph.D. "Alcohol And Cigarette Use Among Early Adolescents." Journal of Drug Education 14 (1984): 195-203.

Bloom and Greenwald stated that "more teenagers are experimenting with smoking and drinking at earlier ages than ever before" (195). This study surveyed 596 fifth through seventh graders from Pennsylvania in regards to their attitudes, behaviors, and knowledge of cigarettes and alcohol. In terms of smoking behavior, adolescent smoking was directly proportional to parental smoking behavior. The average age for adolescent smoking onset was 8.8 years (199). Cigarette smoking was cited as a peer oriented behavior rather than a family oriented behavior. The average age for the onset of drinking was 8.6 years. In this instance the parents were seen as the most important influence on their children's drinking behavior from birth to middle childhood (202). It appeared that the older the child became the more peer influence was a factor (202). In conclusion, smoking and drinking behavior were directly correlated with lower scores on attitude scales (203). Users' student attitudes were more pro-drug than that of the non-user. In order for drug education to have any significant impact on adolescents, the authors stated that prevention must start before experimentation begins (203).

Ford, Denyce S., Ph.D. "Factors Related To The Anticipated Use Of Drugs By Urban Junior High School Students." Journal of Drug Education 13(1983): 187-96.

The purpose of this study was to examine factors related to anticipated drug use among junior high school students. One hundred and forty-eight ninth grade students who were enrolled in two Washington D.C. public schools were chosen as participants in the study. Of those who participated, 97.4 percent were black. There were 75 males and 73 females. Four tests were administered to the test subjects. The tests examined the participants' exposure to drug use, anticipated use, friends' drug use, attitudes toward drugs, perceptions of themselves, peers, teachers, and family relationships, and their general attitude toward school. The results of the study suggested a definite relationship between adolescents who currently use drugs, have friends who use drugs, have a pro-drug attitude, a low self-concept, and low teacher affiliation. Ford concluded that peer pressure and group acceptance were very powerful forces in the lives of growing adolescents and in their desire to use or not use drugs(194).

Graham, Donovan L., ED.D., and William C. Cross, ED.D. "Values And Attitudes Of High School Drug Users." Journal of Drug Education 5(1975): 97-107.

This study sought to examine the values, attitudes, and beliefs of adolescent drug users. Two questionnaires were distributed to 700 11th and 12th grade students from a large, middle class, mid-western high school. The value systems of the drug users were much different than the non-drug users. The drug users were more subjective, unstructured, individualistic, and anti-religious. The key difference between the drug users and the non-drug users was the feeling of separation from their parents(104). They felt parental rejection, distrust, lack of caring, and no common bond. They also felt similar feelings on the part of the school administration and teachers. The authors concluded that drug users fear the thought of being left alone and seem to feel insecure in peer relationships(104). These feelings may have contributed to the use of drugs to gain peer acceptance. Values, morals, ethics, and attitudes must be dealt with in drug education prevention programs if they are to prove successful in reaching the adolescent drug user.

Hundleby, John D., Richard A. Carpenter, R.A.J. Ross, and G. William Mercer. "Adolescent Drug Use and Other Behaviors." Journal of Child Psychology and Psychiatry and Allied Disciplines 23(1982): 61-68.

This study examined the relationship of drug use and other adolescent behaviors among ninth graders from several Ontario schools. Students were administered questionnaires discussing the extent of their involvement concerning a variety of behaviors and drug uses. The results of the research indicated associations between drug use and four broad areas of behaviors: delinquency, lower educational performance, religious behavior, and sexual behavior(62). Cigarettes and alcohol were seen as the main drugs of use. The investigators concluded that adolescent drug involvement must be examined in connection with other more specific types of youth behaviors and activities if educators are to understand the problem of adolescent drug use.

Kandel, Denise B., Ph.D., and John A. Logan, Ph.D. "Patterns of Drug Use From Adolescence to Young Adulthood: 1. Periods of Risk for Initiation, Continued Use, and Discontinuation." American Journal of Public Health 74(1984): 660-65.

This was a follow-up study based on a sample representative of adolescents who had been enrolled in grades 10 and 11 from New York public schools in 1971. The investigators obtained specific data pertaining to age of onset of use, drug histories, and periods of highest use through interviews and charting strategies a minimum of 10 times. Results of the study indicated that drugs varied greatly in their prevalence of use. Alcohol had been used by almost every single member of the cohort, followed by cigarettes and marijuana(661). Initiation to alcohol use seemed to begin as early as age 10 and increased significantly to about age 18. Cigarette use began to show an increase in use at about age 15 and continued on at about the same rate. Marijuana use began to climb at about age 13 and peaked at approximately age 18. Initiation to the above mentioned drugs appeared to be completed by ages 18, 19, and 20 respectively. Decline in use with age appeared to be consistent throughout each cohort (665).

Lerner, Steven E., M.S., and Ronald L. Linder, ED.D. "Drugs In The Elementary School." Journal of Drug Education 4(1974): 317-23.

This study attempted to determine the approximate grade level and to what extent certain drugs were used among fourth, fifth, and sixth graders from San Francisco. Students were administered a questionnaire that was designed to show drug use patterns among elementary students. The results of the testing indicated that alcohol, tobacco, and marijuana were the most frequently used drugs among this group of elementary students. Marijuana was cited by 11.5 % of the students to be the most available drug for purchase at school. Most students (58.3 %) believed that students used drugs to belong, for the fun of it, and for curiosity (321). These findings reemphasized the need for initiating drug education prevention programs in the schools as early as kindergarten and first grade (321).

Riggs, Elaine E. "Students and Drug Use: A Study of Personality Characteristics and Extent of Drug Using Behavior." Conseiller Canadian 7(1973): 9-15

This study examined the possible relationship of attitude and personality traits among three groups of twelfth grade students. The test participants were divided into habitual users, occasional users, and nonusers. Using the Edwards Personal Preference Schedule, the participants were measured on a variety of personality traits. The results of the study showed no significant differences among the three participant groups with the exception of the endurance variable which pertained to concentration, academic failure, lack of motivation, and increased apathy towards future tasks and plans. Aside from this finding, it was determined that there were no significant differences between the three groups. The study suggested that there was a need for further research dealing with abnormal personality traits present among drug groups in our society to see if any personality or attitude variables do exist.

Samuels, Donald J., and Muriel Samuels. "Low Self-Concept As A Cause Of Drug Abuse." Journal of Drug Education 4(1974): 421-38.

This study examined the idea of low self-concept as a possible cause of adolescent drug use and abuse. Thirty seven members of a drug rehabilitation center took part in an open-ended and forced choice survey. The hope of the authors was to measure reasons why adolescents begin to take drugs (426). The results of the survey clearly showed that 73.6 % of the time curiosity and boredom were the leading causes of drug abuse among each individual studied (428). Other leading causes for drug abuse were peer pressure, pleasure seeking, and low self-concept. Although low self-concept did not have nearly the impact as the above mentioned causes, the authors felt that it was a cause to be considered (428). When the authors analyzed the results of the total group, low self-concept showed up as a possible cause for drug abuse 75.7 % of the time. Therefore, it was concluded that "by emphasizing the affective domain, building self-esteem, and enhancing self-concept not only can we hope for a future generation free of drug abuse but for a generation whose energies are channeled toward creative and constructive purposes" (436).

Welte, John W., and Grace M. Barnes. "Alcohol: The Gateway to Other Drug Use Among Secondary School Students." Journal of Youth and Adolescence 14(1985): 487-97.

This study examined the "stepping-stone" theory of progression from alcohol to other drug use. The study gathered data from 27,335 New York State students in grades seven through 12. Students answered a questionnaire covering a variety of personal and drug related areas. The authors used Guttman Scaling to test for progressive patterns of drug use. The concern of the test reflected whether or not the participant had ever used a given drug. Evidence clearly showed that alcohol was by far the most commonly used drug. It had an ever-used rate of 83 percent (492). The scalability coefficient showed that respondents had not used any of the other drugs unless they had used alcohol first. The results of the test showed a definite progressive trend from alcohol to marijuana to pills to hard drugs. The authors concluded their research by stating that "alcohol use preceeds all other drug use"(497).

Effects of Peer and Parental Influence

Babst, Dean V., M.A., Sherry Deren, M.A., James Schmeidler, Ph.D., Douglas S. Lipton, Ph.D., Richard Dembs, Ph.D. "A Study Of Family Affinity And Substance Use." Journal of Drug Education 8(1978): 29-39.

The purpose of this study was to develop a concise index of family affinity and to examine the degree of association between this index and behavioral and attitudinal variables, including drug use. A representative sample of 8,553 students from New York public schools was administered a questionnaire which looked at the participant's background, attitudes and knowledge of drug prevention programs, risk-taking and family affinity, and their own and peers' drug taking behavior. Data reflected the idea that as adolescents become older they become more independent and therefore feel less close to their family. Results of the study indicated that the degree of family affinity was related to students' interest and grades in school. Seventy percent of the students who professed a high degree of family affinity responded positively to school(35). The study also suggested that as family affinity decreased, student drug use, involvement with friends who use drugs, and willingness to take risks all increased(37). It was suggested that drug prevention efforts should take into consideration both family and friends' influence on adolescent drug use.

Friedman, Alfred S., Ph.D., and Yoav Santo, Ph.D. "A Comparison Of Attitudes Of Parents And High School Senior Students Regarding Cigarette, Alcohol, And Drug Use." Journal of Drug Education 14(1984): 37-51.

This study examined the similarities and differences that existed between parents and high school seniors in regard to attitudes toward drug use and abuse. Parental attitudes were surveyed during PTA seminars on drug abuse, whereas, student attitudes came from three sources: the National Survey of High School Students, a 200 student sampling from Philadelphia public schools, and 100 court-appointed juvenile delinquents from a vocational school. Results of the surveys indicated that "most parents strongly disapprove of any type or degree of substance use. . . .The strongest degree of disapproval occurs for the occasional or regular use of drugs other than alcohol or marijuana with 96 percent of the parents stating they strongly disapprove and three percent indicating they disapprove"(38). It appeared that students slightly underestimated their parent's disapproval of their drug use. Parents cited curiosity and escape as critical reasons for student drug use, while students stated the need to get high as their main reason for use(43). Research suggested that on the average, parents reported a greater number of reasons why adolescents use drugs, compared to the students. In conclusion, 85 percent of the parents felt that the problems of drug use and abuse should be handled within the home. The remaining 15 percent cited schools, drug rehabilitation centers, and law enforcement as best for dealing with the responsilility of drug use and abuse(51).

Kandel, Denise. "Adolescent Marihuana Use: Role of Parents and Peers." Science 14(1973): 1067-70.

This study examined data that was collected from high school students, their parents, and best friends in New York State to see if there was any significant influence by parents and peers on adolescent marijuana use. Questionnaires were administered asking about their use of illegal drugs and their perceptions of parental drug use. The parents and best friends were given similar questionnaires with only slight variations in the wording of questions. The results indicated that adolescents who perceived their parents to use drugs reported using drugs(1068). More importantly, Kandel noted that peers play a crucial role in influencing others to use drugs. Kandel stated that "we find that use of marijuana and of other illegal drugs is what friends have most in common . . . on no other activity or attitude is similarity between friends as great as on illegal drug use"(1069). She went on to state that "peer behavior is the crucial determining factor in adolescent drug use and parental behavior becomes important once such behavior exists in the peer group"(1069).

Johnson, Glenn M., M.A., Franklin C. Shontz, Ph.D., and Thomas P. Locke, M.A. "Relationships Between Adolescent Drug Use and Parental Drug Behaviors." Adolescence 19(1984): 295-99.

This study examined the extent to which parental influences were related to adolescent drug use. A confidential questionnaire was administered to an entire student body from a secondary school in Kansas City, Missouri. Drugs were divided into three categories: alcohol, marijuana, and other drugs. The study suggested that parental use of drugs in a given category and perceived parental use of drugs were closely related to the child's use of drugs within the same category. Parental alcohol use was related to the child's alcohol use and the next stage being marijuana. Parental use of marijuana was related to the child's alcohol use and use of other drugs. Parental use of other drugs was only related to the child's use of marijuana and other drugs(297). The results of this research suggested a need for further studies to help determine the degree of influence of parental drug use on adolescent drug use.

Jurich, Anthony P., Cheryl J. Polson, Julie A. Jurich, and Rodney A. Bates. "Family Factors In The Lives Of Drug Users And Abusers." Adolescence 20(1985); 143-54.

The purpose of this research was to examine the family factors of drug users with those of drug abusers. A group of 48 high school adolescent drug users and abusers participated in open-ended, one-to-one interviews which gathered background data, nature, type, and frequency of use, and family life information. For purposes of this paper, drug use was defined as infrequent or occasional use of legal or nonaddictive drugs. Drug abuse was defined as psychological or physical dependence upon psychoactive drugs involving an almost daily ingestion of drugs(450). Results of the research indicated that family variables such as type of discipline, use of psychological crutches, and communication were found to be recurrent problems among the families of drug users and abusers(152). Both the drug users and abusers reported having a higher frequency of parental absence, hypocritical morality, divorce, parental conflicts, and family breakups. When compared to the drug users, the drug abusers differed significantly in that they reported a real lack of communication between themselves and their parents as well as a very lenient use of discipline(152). Parental drug use and denial were more prevalent among the drug abusers than the drug users(154). This study indicated that it was inappropriate to assume that drug users and abusers were all the same, and therefore, they should be treated differently(155). The investigators concluded that "family variables have a significant impact on those who use drugs"(152).

Sarvela, Paul D., Yuzuru J. Takeshita, and Edwin J. McClendon. "The Influence of Peers on Rural Northern Michigan Adolescent Marijuana Use." Journal of Alcohol and Drug Education 32(1986): 29-39.

This study investigated early adolescent drug abuse problems in rural areas of northern Michigan. A variety of questions were presented to the youth in order to obtain information on drug knowledge, personal use, peer use, and general beliefs and experiences with drugs. Results of the study indicated that there was an increase in drug use with age, as well as, an increase in the perception of peer use. In this population, the most crucial time of experimentation seemed to occur in the eighth grade with an increase not only in peer use but in personal frequency of use as well . . . seventh grade was the period in time where the most peer pressure was present(35). In closing, the authors stated that at this point in time the intense need to belong and conform to a group was important to the growing adolescent. It was suggested that further studies should be done to help determine whether peer drug use affected individual drug use.

Sheppard, Margaret A., M.Ed., Michael S. Goodstadt, Ph.D., and Margaret M. Willett, M.A. "Peers or Parents: Who Has The Most Influence On Cannabis Use?" Journal of Drug Education 17(1987): 123-27.

This study examined 1237 elementary and 1022 secondary students from Ontario schools by way of a questionnaire relating to the approval or disapproval of parents and peers in regard to their use of drugs. The study found that the student groups could be divided into three basic classifications: the non-user who would never become a drug user and had no trouble saying no, the experimenter who needed help in the identification of personal goals in view of what parents, peers, and society felt was right, and those students who were at high risk for drug use and abuse who needed to be shown that their lives and lifestyles could be changed through the use of various teaching strategies. The authors concluded by stating that educators "should use every opportunity to inform parents that they, not their children's peer groups will usually be the determining factor in drug use by their children"(127). They felt that the "peer group only becomes important when a young person has already made the decision to use drugs . . ."(126).

Sheppard, Margaret A., Deborah Wright, and Michael S. Goodstadt. "Peer Pressure And Drug Use--Exploding The Myth." Adolescence 20(1985): 949-57.

This study examined the concept of peer pressure and adolescent drug use with approximately 5,000 students in grades seven through 12 from several Ontario schools. Participants were given a questionnaire dealing with knowledge, attitudes, and the use of cannabis. Results of the study indicated that the younger the individual, the less likely they would have been to be offered, pressured, or experimented with cannabis. "Even when students felt pressured, the majority still refused to use cannabis . . . Young people who felt that they might have been under some pressure to use cannabis, were more likely to quit using cannabis once they had tried it"(Goodstadt, 1984). The study concluded by stating that if peer pressure was such a dominant force in the lives of adolescents, then more individuals would fall prey to its charms. "It does appear that it is not the group that goes after the young person, but rather that the person who wishes to experiment with or use drugs on a regular basis is more likely to seek out a drug using group . . ."(957). Adolescents need to take responsibility for their actions and realize that they can say no(957).

Stone, Lorene Hemphill, Alfred C. Miranne, and Godfrey J. Ellis. "Parent-Peer Influence As A Predictor Of Marijuana Use." Adolescence 14(1979): 115-20.

This study examined data from 766 questionnaires measuring the extent of marijuana use at a southwestern university in 1975. It was assumed that parents held a negative attitude toward marijuana use while the peer group was positive in their feelings about marijuana use. This assumption proved to be true. While adolescents vary greatly in physical and emotional development, many studies show that in terms of present oriented situations "the parental reference group is gradually displaced in favor of the peer reference group as the youth moves through adolescence"(115). When talking about marijuana use "most empirical studies agree that the peer group is generally more influential than parents"(116). Results of the research revealed that fewer parents used marijuana, whereas 78 percent of the peer group reported usage of the drug(118). It was concluded that "those students who are parent oriented tend to avoid the use of marijuana, while those who are peer oriented are inclined to use marijuana"(118). The influence of close reference groups proved valuable predictors of marijuana use.

Winfree, Thomas L., Jr. "Peers, Parents, And Adolescent Drug Use In A Rural Community: A Two-Wave Panel Study." Journal of Youth and Adolescence 14(1985): 499-511.

This study examined the changes in parental and peer influences on drug use among student volunteers enrolled in all 12 grades in a rural school setting. The investigators looked at three variables: drug involvement, parental influences, and peer influences. Findings indicated that "alcohol and marijuana were seen as drugs of choice for most American school-age children"(503). It also suggested that continued use of these drugs may lead to the use of other more harmful substances(503). It was noted that rate of drug use and parental conflicts concerning drug use showed a remarkable increase over a three year period(506). Both pro-drug and anti-drug discussions had taken place between adolescents and their close friends partly due to present family conflicts. It appeared from this research that adolescents turned to their close friends for help and advice when parental conflicts were greater(507). In conclusion, it was stressed that the best predictor of future drug using behavior was past behavior(508).

Specific Program Models

DeJong, William, Ph.D. "A Short-Term Evaluation Of Project DARE (Drug Abuse Resistance Education): Preliminary Indications of Effectiveness." Journal of Drug Education 17(1987): 279-93.

Project DARE, a joint project of the Los Angeles Police Department and the Los Angeles Unified School District, aimed at equipping elementary and junior high students with the skills necessary to resist pressure to experiment with drugs, alcohol, and tobacco. In 1986, 1,663 students from seventh grade health classes in Los Angeles participated in an evaluation of Project DARE. Students were divided into two groups: DARE and No DARE. Questionnaires relating to self-esteem, refusal skills, substance use since sixth grade, Project DARE content, and future predictions of drug use were completed by each student group. Results of the questionnaire indicated that contrary to what was expected, there were no significant differences between the two groups in regard to self-esteem and knowledge and attitude of drugs. There were many similarities between the two groups and their use of refusal skills. The only significant difference was the use of specific strategies. DARE students most often used the same refusal strategies. On the average, students from the DARE group reported less use of all drugs. DARE students were more likely to use a drug only once in comparison to the No DARE group. The investigators concluded that a more longitudinal evaluation of DARE was needed to assess its impact on students entering high school. However, they felt that the results of this short-term evaluation indicated that their investment in Project DARE was paying dividends(293).

Dupont, Paul, J., and Leonard A. Jason. "Assertiveness Training In A Preventive Drug Education Program." Journal of Drug Education 14(1984): 369-77.

This study set out to examine the effectiveness of assertiveness training in conjunction with the traditional approach to drug education. Seventh grade students from three parochial schools served as participants in the study. There were an assertiveness group, a traditional group, and a no-treatment control group. All students were given pre, post, and follow-up tests. Information concerning different drug classifications and their physical and psychological effects, as well as, values clarification exercises were conducted with both treatment groups. Only one of the treatment groups received additional assertiveness training. Results from the testing showed that the two treatment groups increased in drug knowledge after some time. Attitudes toward drugs seemed to become more conservative with the group that received the assertiveness training. The traditional group showed no significant changes. There were no significant changes for either group in regard to drug use. The authors suggested that students may develop more anti-drug attitudes as they act in more assertive, anti-drug ways(375).

Englander-Golden, Paula. "Say It Straight: Adolescent Substance Abuse Prevention Training." ERIC ED 250588 (1984): 1-19.

Say It Straight, SIS, an alcohol and drug abuse prevention program, was developed to aid sixth, seventh, and eighth graders to gain skills necessary in making constructive decisions and thus enabling adolescents to say "no" to peer pressure. Approximately 500 students from an experimental school volunteered to participate in the "Say It Straight" program which took place immediately following the school's drug abuse prevention program and continued on for 10 days. A variety of communication styles were reviewed and role-played during the training sessions. One control school was used to evaluate drug-related suspensions and referrals, and another was administered an objective questionnaire that measured assertive attitudes. After the training, participants were evaluated using objective and subjective questionnaires and were monitored in regard to drug-related suspensions and referrals. Results indicated that by the end of the school year no SIS students were involved in suspensions and referrals compared to 55 students from the control schools. The questionnaires supported the hypothesis that "youngsters who participated in the training would experience a significant shift toward assertiveness/leveling and would have fewer alcohol and drug-related school suspensions and referrals compared to youngsters who were only exposed to a standard school-administered substance abuse prevention program"(5). The investigators concluded that the results of the SIS training appeared very promising. Research indicated that "most young people do not want to be involved in substance abuse. When given the opportunity to develop assertiveness/leveling skills, they can negotiate pressure situations successfully. Furthermore, youngsters have reported actual situations in which they have put these skills to use"(16).

Gersick, Kelin E., Katherine Grady, and David L. Snow. "Social-Cognitive Skill Development With Sixth Graders And Its Initial Impact On Substance Use." The International Journal of Psychiatry In Medicine (1988): 55-67.

The purpose of this research was to test the effectiveness of a skill building curriculum and to examine the initial impact of this skill development on drug, alcohol, and tobacco use. Approximately 1,372 students from New England public schools combined to form program and control groups. The program consisted of 12--40 minute sessions that were offered once per week for 12 weeks. The course was divided into three parts covering decision-making skills, peer pressure, and other support networks. Evaluation of the program used two questionnaires and a drug use survey. Not all participants in the original program were involved in the follow-up study due to a lack of parental permission. Results of the study indicated that "the student intervention was very effective in increasing awareness of decision-making concepts, and their ability to respond to situational dilemmas by using a decision-making process"(65). While there was no significant difference between the two groups concerning alcohol use, the program students reported less use of tobacco. No significant differences appeared between the two groups concerning the level of experimental use. For these sixth graders, alcohol experimentation and use were already significantly more prevalent than tobacco use(66). In conclusion, it was stated that "the sixth grade may be an appropriate time to initiate a preventive intervention program regarding smoking but may already be somewhat late regarding alcohol use"(66).

Milgram, Gail G., ED.D. "Alcohol And Drug Education Programs." Journal of Drug Education 17(1987): 43-55.

Milgram stated that "Americans turn to the schools whenever a problem exists which affects a large segment of society. Educational efforts and programs evolve to meet the areas of societal concern . . ."(43). The author examined several points that were essential to successful alcohol and drug education programs within our schools. Every program must have a philosophical position on prevention(44). This position should be a combined effort involving the community, school administrators, and students. "The philosophy upon which the educational effort is based will allow for policy development and program implementation"(45). Policy was most successful when it was written down in handbooks and guides for all to read. It was also important to the success of the program to have stated goals and objectives(50). Milgram suggested that five goals for a drug education program should involve, basic information, an understanding in terms of society, decision-making skills, individual and group responsibility, and an understanding of the various treatment programs(51). The author also felt that proper teacher training was necessary to a program's success. Thorough knowledge of the facts as well as classroom credibility were major concerns(49). The need for adequate, consistent, and ongoing program evaluations was vitally important(50). Evaluations must consider more than just knowledge learned. Behavior and attitude changes must also be considered. In conclusion, "Time is a major, though often ignored factor in prevention education efforts. Necessary and sufficient time is required for efforts to implement a comprehensive approach and to longitudinally assess the impact"(53).

Moore, Michael, and Shoshana Weiss. "'Alcohol And Drunkenness'--A Newly Developed Curricular Unit As A Model For Drug-Education, Science Oriented Curricular Programs." Journal of Drug Education 15(1985): 263-71.

Faced with a growing problem of alcohol addiction, Israel instituted an "Alcohol and Drunkenness" program which they hoped would serve as an instrument for battling excessive drinking among their youth(264). This educational program explained the religious tradition and helped discern what was acceptable to the Jewish nation concerning alcohol use. The target population for the program consisted of a 10th through 12th graders from all segments of society. Primary prevention was the main focus of this alcohol drinking only program. The curriculum attempted to foster decision-making skills including values clarification through non-conventional teaching methods. Teachers were expected to go through a structured teacher training program in alcohol education. The ultimate objective of the program was to help foster desirable attitudes within the students rather than strictly providing knowledge. The program strategy divided the curriculum into 10 units allowing for flexible time allotments. The student centered program used class discussion, group games, role-playing, brainstorming, and field trips to promote learning. The program was also developed to fit into all aspects of the basic school curriculum. Field-Test Evaluations involving 96 students from three schools in North Israel suggested that the objectives of the program were achievable. Positive changes also occurred in knowledge, attitudes, and behavior. Based on these findings, it was concluded that this curriculum should be considered a practicable educational tool in the prevention of excessive drinking and a meaningful contribution to secondary science education(269).

Perry, Cheryl L., Joe Killen, LeeAnn Slinkard, and Alfred L. McAlister. "Peer Teaching And Smoking Prevention Among Junior High Students." Adolescence 15(1980): 276-81.

This study examined Project CLASP--Counseling Leadership About Smoking Pressure, a program designed by Stanford Heart Disease Prevention Program personnel. This program hoped to model a social learning theory which expected to change student behavior by changing their environment, decision-making ability, and personal values(278). Two peer teaching teams consisting of 18 high school students went through intensive training sessions with qualified staff prior to instructing the seventh grade classes at their adjoining junior high school. The peer teachers used a variety of teaching styles and aides in their presentation of information. Graduate students served as classroom monitors in the absence of the regular classroom teachers. The main thrust of the program was to help students to learn to identify and practice resisting the pressures to smoke. Specifically, the junior high students committed publically to not smoke, heard testimonials from hooked smokers, were challenged to resist pressures, identified methods of pressure, rehearsed methods to resist pressure, and participated in role-play situations(278). The results of the program suggested that although smoking continued to increase at the same rate as the control school after a minimal eighth grade program, significant differences were still observed for the combined control schools. This indicated that a smoking prevention program that was based on changing the adolescent's environment, decision-making, and values could produce positive changes in smoking behavior(280). Schools need to look for means of reinforcing non-smoking behaviors and strengthening any existing junior high programs since the greatest increase in tobacco use occurred during the seventh and eighth grades(277).

Selnow, Gary W. "Using A Stratified Approach In Substance Intervention And Prevention Programs Among Adolescents: An Empirical Analysis." Journal of Drug Education 15(1985): 327-41.

The purpose of this study was to determine whether or not there was a basis for developing a substance usage treatment program into levels according to categories such as sex, age, and socio-economic status. The study was divided into two categories: "Classification" variables- age, sex, and socio-economic status; and "Operational" variables- parental relationships, self-image, formal group membership, and religiousity. Subjects for this study were 3,759 students in grades six through 12. The school system served rural, suburban, and city children. The survey instruments used standardized measures whenever possible; others were pretested and modified. The initial review considered relationships between substance usage and the seven classification and operational variables. Results of a stepwise multiple regression analysis concerning substance usage were presented. The study found that as age increased so did subjects' involvement with substances(329). The stronger a student's religious beliefs, the less involved he/she was with substance usage. Parental relationships suggested that children with greater family affinity were less involved with alcohol and illegal drugs. Sex and self-image were important, but accounted for a small percent of variance. Socio-economic status and group membership were not particularly significant. Self-image played a more important role in the youngest respondents. With that exception, there was little basis for recommending separate programs among adolescent population according to age and sex. The series of variables offered some foundation for the development of common intervention and prevention programs.

Smart, Reginald G., Clif Bennett, and Dianne Fejer. "A Controlled Study Of The Peer Group Approach To Drug Education." Journal of Drug Education 6(1976): 305-11.

This study examined the effects of a peer oriented drug education program and a traditional drug education approach on the knowledge, attitudes, and drug use of ninth grade students from two Southern Ontario county schools. Student leaders, selected by their peers, were provided with a wide selection of instructional materials. The peer-run approach showed an increase in the knowledge level of its students in comparison to the traditional teacher approach. As far as drug use was concerned, it seemed to increase in both programs. The authors concluded by stating that some drug education programs increase the knowledge of students without affecting their attitudes or amount of drug use(310). The results of this program raised doubts as to the value of the peer-oriented type of drug education.

Stein, Joyce A., John D. Swisher, TEH-WEI HU, and Nancy McDonnell. "Cost-Effectiveness Evaluation of A Channel One Program." Journal of Drug Education 14(1984): 251-69.

This study examined the effectiveness and cost-effectiveness of "Channel One", an alternative approach to drug prevention programs. Channel One was seen as a unique program for several reasons: young people were given the primary responsibility in deciding the group project, partnerships were developed with local business representatives and community social workers, and funding was almost completely provided through volunteers(253). Three program sites were evaluated. Each site was responsible for a variety of different activities. These activities were usually geared toward community improvements, making projects, raising money, or providing recreational activities. Several scales were used to assess the success of the programs. Problems arose in the administration of the pre, post, and final tests causing one to be thrown out. This study hoped to measure changes in drug use, affective behavior, social behavior, and school performance. Results of the evaluations indicated that drug use had increased during the Channel One program, and the other variables showed no significant changes. In conclusion, these investigators stated that the "Channel One program was ineffective in producing significant reductions in substance usage from pre- to post-test occasions"(263).

Evaluation and Effectiveness of Drug Education Prevention Programs

Duryea, Elias J., Ph.D., and Jebose O. Okwumabua, Ph.D. "Effects of a Preventive Alcohol Education Program After Three Years." Journal of Drug Education 18(1988): 23-29.

One hundred thirty students participated in a preventive alcohol program based on a framework of the McGuire's Theory of Attitude Inoculation. The purpose of this program was to give students skill in resisting peer pressure related to alcohol use. The four-stage program model includes knowledge of peer-based verbal persuasion, practice in resisting persuasive appeals, instructor feedback and evaluation, and booster activities. Participants were provided knowledge and resistance skills in alchohol-related behavior. The study stressed riding with a drinking driver, frequency of drinking, and drinking to excess. After six months, the findings suggested modest, favorable effects in high school students. Three years after the early stage of the program, an assessment of the original students was conducted. This study showed the absence of statistically significant differences in behavior between the experimental groups and control group. The authors attributed these results to the possible maturation of these students and the lack of follow-up booster programs after six months. They recommended additional studies and research to discover the most effective combination of educational patterns and sequential booster activities which would help young people establish resistance to dangerous or undesirable health behaviors.

Kinder, B.N., N.E. Pape, and S. Walfish. "Drug and Alcohol Education Programs: A Review of Outcome Studies." The International Journal of the Addictions 15(1980): 1035-54.

This review considered both evidence regarding the outcomes of drug and alcohol education programs and evidence regarding the variables responsible for the success of these programs. After analyzing several studies, investigators reported that although knowledge of drugs was shown to increase among the participants, student attitudes became more lenient. This finding resulted in more curiosity and less fear of experimentation on the part of the participants. The investigators suggested that the method of presentation may have been the most important variable in any drug education experience. It appeared that programs that allowed students to share in a more affective, group-centered environment showed positive attitude changes toward drugs and alcohol. The traditional lecture approach to drug education shifted attitudes in favor of drug use.

McClary, Sybil A., and Bernard Lubin. "Effects of Type of Examiner, Sex, and Year in School on Self Report of Drug Use by High School Students." Journal of Drug Education 15(1985): 49-55.

This study was concerned with the accuracy of data on drug use. Consideration was given to the effects of the examiner who collected data and the types of data collected. Examiners were teachers, peers, and a slightly older stranger. Information was collected through a social support scale, a drug survey instrument, self report of drug use, and the Multiple Affect Adjective Check List. Six classroom groups of sophomores and seniors voluntarily completed the measures. The battery of instruments were administered without prior knowledge by a randomly chosen examiner. Results of the study showed that the type of examiner influenced or affected the responses of self reports in drug use. Those administered by slightly older strangers elicited the highest responses, almost twice that for tests administered by teachers. Instruments administered by peers brought out an intermediate response (52). The conclusion was that even though respondents were anonymous and a variety of instruments were used, the sensitive nature of drug use self report surveys resulted in examiner influenced responses.

Pascale, Pietro J., ED.D., and Fred Streit, M.ED. "A Study of the Credibility Factor In Drug Education Programs." Journal of Drug Education 2(1972): 391-94.

This study was conducted with 600 students from junior high, senior high, and college levels. The study examined the extent to which the participants received various sources of information regarding drug issues. Each group was administered a brief questionnaire listing seven sources of information. Students were asked to answer with a yes or no regarding whom they would listen to when given advice concerning drugs. The results of this study indicated that junior high students would take parental advice most often, whereas senior high and college students preferred the advice of peers or drug users. The authors suggested that these results were in agreement with the findings that showed that peer pressure and influence were a significant characteristic feature of adolescence(394).

Rhodes, Jean E., M.A., and Leonard A. Jason, Ph.D. "The Retrospective Pretest: An Alternative Approach in Evaluating Drug Prevention Programs." Prevention (1987): 345-53.

This research compared traditional pretest/posttest results in drug prevention programs. The purpose was to attempt to determine which method was most valid. The participants were seventh grade students from an all black elementary school. Classrooms were randomly assigned into two experimental groups and one control group. One week before the program, a behavior self-rating scale, a drug-knowledge scale, and a problem-solving scale were administered to all groups. The program contained a drug information component and a cognitive-behavioral component. At one and two week intervals after the program ended, posttests and retrospective pretests were administered. Data was analyzed for those participants who completed all evaluations. Pretests indicated at the onset there were no significant differences in grades, attendance, gang membership, and drug usage. Traditional pre and posttests indicated an increase in cigarette usage, a slight increase in gang membership, and decreases in self-reported marijuana and alcohol usage. Retrospective pre and posttests indicated no significant decreases in self-reported substance abuse and gang membership. The control group showed no significant changes. The results suggested retrospective pretest/posttest might provide researchers with additional, more accurate, and valid assessments of preventative programs (353).

Schaps, Eric, Russell DiBartolo, Joel Moskiwitz, Carol S. Palley, and Shoshanna Churgin. "A Review of 127 Drug Abuse Prevention Program Evaluations." 11(1981): 17-43.

This review examined the outcome evaluations of 127 primary drug abuse prevention programs that were implemented between 1968 and 1977. The expectation of this review was to develop useful information for future policy and program planning. Studies considered for the review were included if they evaluated the effects of some planned intervention and used "drug specific" measures of effectiveness (18). Of the 127 studies, 80 percent were based in schools with their attention focused on the youth population. Various program strategies discovered information, persuasion, affective counseling, tutoring, peer group, family, program development, and alternatives (22). The most common method of measurement involved the use of pre-post testing. Questionnaires were the most common method of gathering data. Eighty five percent of the programs used only a single method of measurement (27). Programs appeared to produce only minimal effects on drug use behaviors and attitudes, whereas knowledge levels showed significant increases (34). In conclusion, the investigators stated that "evaluation research in primary prevention remains weak in general . . . Neither overall evaluation quality nor intensity of evaluated service programs has improved much over the last 10 years"(40. It was recommended that "those in the prevention field encourage rigorous outcome evaluations of well established prevention programs, and that funding agencies provide the substantial amounts needed to implement such evaluations" (41).

Williams, Raymond E., David A. Ward, and Louis N. Gray. "The Persistence of Experimentally Induced Cognitive Change: A Neglected Dimension in the Assessment of Drug Prevention Programs." Journal of Drug Education 15(1985): 33-41.

The issue covered in this study concerned the extent to which drug and alcohol prevention education has been successful regarding attitude and behavior change. This study stressed "communicator credibility" and "fear appeal of the message" (34). The authors considered three possibilities in alcohol education efforts: first, post experimental differences may lessen with passage of time; second, the "sleeper effect"; third, differences could persist. One hundred three seventh and eighth grade students participated in the study. Groups were randomly assigned to four different treatment conditions: high fear appeal, non-alcoholic communicator; low fear appeal with an alcoholic communicator; low fear appeal, non-alcoholic communicator; and high fear appeal with an alcoholic communicator. Twelve low fear and twelve high fear presentations were concerned with the effects of drinking alcohol. Varied forms of The Attitude Scale Toward Any Practice and a retention scale were administered to the subjects. One form of each was completed immediately following the presentations. The other form was administered one week later. The results supported previous studies that "moderate fear" and "alcoholic communicator" produce the greatest retention of information (40). The authors felt their study suggested avenues for future research with the necessity of designing programs with a better understanding of immediate and latent effects of fear appeals and communicator credibility (41).

SUMMARY

After reviewing the available research, it became evident that there was a variety of motivating and influencing factors of adolescent drug use/abuse. Some of these factors were more significant to the research than were others. Results of self-reported drug use cited the following as possible causes for adolescent drug use: curiosity, boredom, escape, the need to get high, low self-concept, and for the fun of it (Samuels 428).

Drug experimentation appeared to be beginning at earlier ages than ever before. Bloom stated that teenage smoking and drinking were beginning as early as 8.8 and 8.6 years respectively (202). This data helped to substantiate the findings by Lerner and Linder which indicated that there was a significant need for initiating drug education prevention programs in the schools as early as kindergarten and first grade (321). Research has suggested that drug use increases with age. In a study by Sarvela, it was stated that there was an increase in drug use with age, as well as, an increase in the perception of peer use (35). Students who participated in a Weekly Reader survey believed that the older they get, the more often drugs and alcohol were used (14).

In a study by Kandel and Logan, it was determined that drugs varied greatly in their prevalence of use. This study indicated that alcohol had been used by every member of the cohort, followed by cigarettes and marijuana (661). Research by Hundleby supported the concept that alcohol and cigarettes were seen as the main drugs of use by adolescents (67). In the Weekly Reader survey, adolescents reported that they did not consider alcohol and cigarettes to be drugs as they did marijuana and hard drugs (21).

Welte and Barnes examined the "stepping stone" theory of progression for drug use. Results of their study showed that alcohol was by far the most commonly used drug among New York State high school students with an ever used rate of 83 percent. Cigarettes were next in line with a 49 percent rate of use (492). Students in this study stated that they had not used any other drug prior to using alcohol first. Testing showed a definite progressive trend from alcohol to marijuana to pills to hard drugs (493). Lerner and Linder stated that alcohol, tobacco, and marijuana were the most frequently used drugs among elementary school students (321). Winfree also suggested that if adolescents continued to use alcohol and marijuana it may lead to the use of other more harmful substances (503).

In a study by Bloom and Greenwald, they cited that the older the child became, the more peer influence was a factor in drug use (202). The parental reference group was gradually replaced by the peer reference group as the youth moved through adolescence (Stone 115). Kandel indicated that peers play a crucial role in influencing others to use drugs by stating "we find that use of marijuana and of other illegal drugs is what friends have most in common . . . on no other activity or attitude is similarity between friends as great as illegal drug use" (1069). Sarvela stated that early adolescence brought with it an intense need to belong to a group. The most peer pressure seemed to begin to occur in the seventh grade (35). "It does appear that it is not the group that goes after the young person, but rather that the person who wishes to experiment with or use drugs on a regular basis is more likely to seek out a drug using group . . ." (Sheppard 957). In another study by Sheppard, Goodstadt, and Willett, they concluded that the "peer group only becomes important when a young person has already made the decision to use drugs . . ." (126).

Family affinity proved to be a significant factor in the adolescent's decision to use or to not use drugs. As family affinity decreased, student drug use, involvement with friends who use drugs, and their willingness to take risks all increased (Babst 37; Selnow 338) Stone discovered that those students who were parent oriented tended to avoid the use of marijuana, while those who were peer oriented were more inclined to use marijuana (118). A key difference between the drug users and the non-drug users was the feeling of separation from their parents (Graham 104). Family variables such as type of discipline, use of psychological crutches, and communication were found to be recurrent problems among the families of drug users/abusers (Jurich 152). Parental discipline was cited as being very lenient (Jurich 146). Other family factors which were identified as critical to adolescent drug use/abuse were parental absence, hypocritical morality, divorce, parental conflicts, family breakups, and perceived parental drug use (Jurich 152; Kandel 1068; Johnson 297). Winfree stated that it was especially during this time of conflict that adolescents turned to their close friends for help and advice (501).

"Over the past two decades, there have been many efforts to reduce maladaptive or dangerous behavior by adolescents, such as substance abuse, through preventive interventions in school settings" (Gersick 56). In order for drug education to have any significant impact on adolescents, prevention must be implemented before experimentation begins (Gersick 66).

In a review of several outcome studies, it was suggested that the method of presentation may have been the most important variable in any drug education experience (Kinder 1050; Moore 264; Englander-Golden 16). The more students were allowed to actively participate in the program, the more positive attitude changes toward drugs and alcohol surfaced (Kinder 1047).

This was a direct contrast to the often used traditional lecture approach to drug education. Although knowledge of drugs increased in this type of program, student attitudes often became more lenient. This resulted in greater curiosity and experimentation on the part of the student (Schaps 34).

"Say It Straight" was a program which attempted to strengthen decision-making skills and better equip students to say "no" to drugs and alcohol. Those students who participated in assertiveness training programs such as "Say It Straight" had fewer alcohol and drug related suspensions and referrals from school and felt they could negotiate pressure situations more successfully (Englander-Golden 4-6).

Two peer teaching programs for drug education were examined. The rationale for this approach to drug education was that the students know more about drugs than the teachers and have the additional advantage of high credibility (Smart 305). In a study of credibility, Pascale discovered that adolescents most often preferred the advice of their peers or drug users (394). This idea was substantiated in a study by McClary and Lubin. In this study, consideration was given to the type of examiner, sex, and year in school. Results of the study showed that the type of examiner influenced the responses of self-reported drug use. Those surveys administered by college students and peers produced a much greater response than that of the teachers (52).

CLASP--Counseling Leadership About Smoking Pressures, used the peer teaching approach in hopes of changing environment, decision-making ability and personal values of students. The main thrust of this program was to help students learn to identify and practice resisting the pressure to smoke (Perry 278). In a 1976 study by Smart, knowledge of drugs increased while behavior and attitudes appeared unchanged (310). These results were slightly different in a more recent study. Although smoking continued to increase

at the same rate between the study groups, Perry observed significant differences in the occasional smokers. They concluded that a peer prevention program based on changing the adolescent's environment, decision-making, and values would produce positive changes in smoking behavior (280).

An Israeli alcohol prevention program studied by Moore and Weiss stressed the importance of the development and implementation of preventive type learning programs rather than abstention and rehabilitation (264). Faced with a growing alcohol problem among adolescents, Israel sought to battle the problem through a curriculum based on teaching decision-making skills and values clarification through non-conventional teaching methods such as group discussions, role-play, brainstorming, and field trips. Results indicated that positive changes occurred not only in knowledge, but in attitude and behavior (269).

Project DARE (Drug Abuse Resistance Education) program aimed at equipping students with the necessary skills to resist peer pressure. Although no significant changes occurred among the study groups, DARE students exhibited less use of all drugs and were more likely to use a drug only once (DeJong 292).

Channel One was a unique type of prevention strategy aimed at involving adolescents in community improvements, projects, fund raising, and recreational activities. In a study by Stein, it was hoped that giving responsibility and involving adolescents in worthwhile projects would change attitudes and decrease drug use. This did not happen, and, therefore, the program was concluded to be ineffective (263). Funding and evaluation were also problems that affected the program's success.

CONCLUSION

From the research, it was concluded that adolescent drug use was on the increase. Many factors influenced the adolescent to experiment with or continue to use drugs. Some of these factors were curiosity, for the fun of it, to escape, boredom, and to get high. The most significant factors were peer and parental influence. These motivating and influencing factors will always be present. Therefore, because the adolescent spends much of his/her time within the confines of the school, it has become apparent that the educator may be in the best position to help.

Research has indicated that educators are increasing the adolescent's knowledge about drugs, but they are not positively influencing the attitudes and behavior of their students. Many of our present-day drug prevention programs have focused on the traditional lecture and fear approach to changing behavior. This approach may not be enough. Research has stated that increasing the adolescent's knowledge without changing attitudes and behavior may only increase the curiosity of the adolescent toward drugs.

Many of the newest program models studied appeared to be changing this problem. Those programs that put emphasis on changing decision-making skills, attitudes toward drugs, and values did see some changes in those adolescents who were tested. Although adolescent drug use did not appear to change significantly, research indicated a greater use of refusal skills and more positive attitude changes toward drugs and alcohol.

Many of the programs studied lacked the long-term, longitudinal studies that were necessary in determining program effectiveness. Funding and testing procedures were two other factors that interfered with program effectiveness.

It remains evident that the need for effective drug prevention programs is vitally important if we are to see significant changes in the lives of today's adolescent. They need to learn and put into practice the art of being able to resist the pressures to use drugs.

RECOMMENDATIONS

1. Drug education prevention programs should begin as early as possible before the problem gets out of control.

2. The need for more adequate funding to initiate and evaluate prevention programs is necessary.

3. Encourage more thorough outcome evaluations of well established programs.

4. Initiate more active student involvement using a variety of non-conventional methods along with the traditional lecture approach to teaching.

5. Adequately train staff in the program or method to be implemented in the school.

6. Develop a committee of parents, students, community professionals, and staff to evaluate and consider a variety of drug prevention programs in order to select the program best suited to the school's student needs.

7. Schools need to carefully choose their program instructor. Credibility must be considered.

8. When developing a drug education prevention curriculum, include a philosophy, stated goals, objectives, and an evaluation procedure.

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RESUME

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